

Involvement of Spouse in Postnatal Care among Mothers in Maternal and Child Health Clinic of a Referral Hospital of Nepal

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ABSTRACT

Introduction: The postnatal period, lasting from childbirth to six weeks, is a critical time for the mother as well as newborn. Spouse involvement in postnatal care is a crucial factor that supports maternal and newborn wellbeing. Increased husband participation improves maternal recovery, newborn care practices, and utilization of health services. This study is intended to assess spouse involvement in postnatal care among mothers in maternal and child health (MCH) clinics in a referral hospital.

Methods: A descriptive cross-sectional study was conducted among 95 mothers of under one-year children at the MCH clinic of Tribhuvan University Teaching Hospital (TUTH), Kathmandu Nepal. Data was collected by using nonprobability, purposive sampling techniques through face-to-face interviews with semi-structured 5-point Likert. Data was analyzed in SPSS version 20, applying descriptive and inferential statistics.

Results: this study showed that 54.7% mothers were aged between 25–30 years. Almost all (98.9%) spouses had high involvement and only 1.1% had low involvement. Mean involvement score was 112 ± 13.62 . High involvement was observed in nutritional support (67.4%), reminding them to take iron & calcium supplementation (66.3%), assisting with newborn night care (71.6%), and breastfeeding support (66.3%). However, involvement was comparatively lower in hygiene-related activities: reminding pad change (36.8%) and genital hygiene (31.6%).

Conclusion: Almost all spouses of mothers of the under one-year children were highly involved in postnatal care, especially more support found in maternal nutrition, rest, newborn care, and emotional support. Statistically significant association was found between level of spouse involvement in postnatal care and mode of delivery.

Keywords: Husband involvement, maternal health, newborn care, postnatal care

INTRODUCTION

Reducing maternal and neonatal mortality remains a major global health challenge. Each year, about 287,000 women die from complications related to pregnancy, childbirth, and the postpartum period, nearly 800 deaths daily worldwide. Similarly, around 2.6 million newborns die within their first month of life, accounting for about 7,000 deaths each day¹.

Most (90%) maternal and neonatal deaths occur in developing countries, with Sub-Saharan Africa accounting for about 70% of global maternal deaths, followed by Central and Southern Asia at nearly 17%. In 2020, neonatal mortality was highest in Sub-Saharan Africa and Southern Asia, with 27 and 23 deaths per 1,000 live births, respectively^{1, 2}. The postnatal period, extending up to six weeks after delivery, is a highly vulnerable time for both mother and newborn, with increased risks of hemorrhage, infection, psychological

distress, preterm birth, asphyxia, feeding difficulties, and neonatal infections. Therefore, postnatal care is an essential component of maternal and newborn health³.

Proper postnatal care promotes early detection and management of complications, supports maternal recovery, and improves newborn survival. Husband involvement during this period is increasingly recognized as an important factor that strengthens maternal and child health outcomes. Support from husbands can encourage timely utilization of postnatal services, improve maternal nutrition and rest, promote breastfeeding practices, and assist with newborn care activities such as hygiene maintenance and follow-up visits⁴.

Global evidence showed that male participation provides emotional support to mothers, improves postnatal care utilization and breastfeeding practices, reduces maternal stress and improving overall wellbeing. Structured programs in developed countries further enhance husband participation⁵. Male involvement in maternal and postnatal care is high in developed countries; more than 70% of men were actively involved in partner support, health decision-making, and follow-up care in the United States⁶, and likely 60–80% of husbands attend antenatal visits and provide emotional and practical support to their partners in the United Kingdom and Europe⁷. Male involvement is also considered a routine part of parenting in developed countries, so fathers are actively involved in newborn care, breastfeeding support, and postnatal visits in high-income countries, including Australia⁸.

The overall level of husband involvement in postnatal care service (PNC) utilization was found higher (87.7%) in Nigeria⁹ and 59.3% in Tanzania¹⁰. However, other studies from Africa have shown relatively low involvement of male partners in their spouse's utilization of PNC services: 20%, 23.7%, and 34.1% in Ghana¹¹, south Ethiopia¹², and central Ethiopia¹³ respectively.

However, in many developing countries including Nepal, husband involvement in postnatal care is often limited due to cultural beliefs, traditional

gender roles, and lack of awareness. Even though progressively improving maternal health services, husband involvement in their spouses' postnatal care service utilization reported relatively low (33.8%) compared to antenatal care in Nepal¹⁴. Therefore, this study intended to assess the husband involvement in postnatal care among mothers attending the Maternal and Child Health clinic at Tribhuvan University Teaching Hospital, Kathmandu, Nepal.

METHODS

A descriptive cross-sectional study design was adopted to assess the spouse involvement in postnatal care among mothers of under one year child. This study was conducted in the Maternal and Child Health Clinic of Tribhuvan University Teaching Hospital (TUTH), Maharajgunj, Kathmandu, Nepal. The study population consisted of mothers with children under one year attending the MCH clinic for immunization, growth monitoring, and counseling services. The total sample size was 95 mothers with children under one year of age, the sample size was calculated using 66.2% prevalence¹⁵ and Cochran's formula with 10% non-response adjustment. The data were collected by using nonprobability purposive sampling technique. Data was collected through face-to-face interviews using a semi-structured questionnaire developed by researchers themselves. Husband involvement was measured using a 26-item 5-point Likert scale questionnaire with minimum score range 26 and maximum 130. Scores were categorized into two categories on the basis of mean score, which was 78, score ≥ 78 indicate high involvement and score < 78 low involvement. Data was coded and entered into SPSS version 20. Descriptive statistics (frequency, percentage, mean, SD) and inferential statistics (chi-square test) were applied for data analysis. Ethical approval was obtained from the Institutional Review Committee (IRC), IOM and ethical number was 543/2081-82. Written informed consent was taken from respondents. Confidentiality and privacy were maintained.

Table 1: Socio-demographic Characteristics of the Respondents and her Spouse(n=95)

Characteristics	Number	Percentage
Age (in completed years)		
<25	18	18.9
25-30	52	54.7
≥31	25	26.4
Mean age±(SD)=27.75±3.79, Range 22-35 years		
Ethnicity		
Brahmin/Chhetri	62	65.2
Janajati	23	24.2
Dalit	5	5.3
Madhesi	3	3.2
Thakuri	2	2.1
Religion		
Hinduism	79	83.2
Buddhism	11	11.5
Islam	3	3.2
Christianity	2	2.1
Type of family		
Joint	52	54.7
Nuclear	43	45.3
Monthly income sufficient for		
Expenditure during that month	79	83.2
Insufficient expenditure during that month	9	9.5
Sufficient for expenditure and surplus	7	7.3
Educational status of respondents		
Cannot read and write	4	4.2
Can read and write with informal education	1	1.1
Secondary education	23	24.2
Bachelor and above	67	70.5
Occupation of respondents		
Homemaker	65	68.4
Business	14	14.7
Services	9	9.5
Agriculture	7	7.4
Educational status of spouse		
Can read and write with informal education	1	1.1
Secondary Education	27	28.4
Bachelor and Above	67	70.5
Occupation of spouse		
Business	34	35.8
Services	24	25.3
Foreign Employment	16	16.8
Agriculture	16	16.8
Daily wages workers	5	5.3

Table 1 shows concerning education, 70.5% of respondents and her spouse completed bachelor's degree or higher, occupation wise, 35.8% spouse were involved in business or service jobs, and 83%

of families said their income was enough for monthly expenses. More than half of the respondents (54.3%) lived in joint families, 68.4% were homemaker and 35.8% spouses involved in business.

Table 2: Obstetrical Characteristics of the Respondents (n=95)

Variables	Number	Percentage
Frequency of pregnancy (Gravida)		
Primigravida	40	42.1
Second gravida	44	46.3
Gravida three and more	11	11.6
Living children (Parity)		
One child	53	55.8
Two children	34	35.8
Three and more	8	8.4
Having postnatal complication	11	11.6
Duration of pregnancy (in complete weeks)		
Term pregnancy (37-40)	79	83.2
Post dated pregnancy (≥ 41)	16	16.8
Mode of delivery		
Vaginal Delivery	56	58.9
Cesarean Section	39	41.1
Comorbidity associated with Pregnancy		
Hypertension	13	13.7
Hypothyroidism	12	12.6
Diabetes	11	11.6
Weight of the last Child (in gram)		
3168 - 4000	48	50.5
2334 - 3167	45	47.4
1500 - 2333	2	2.1
Crying status of newborn after birth		
Cried immediately	90	94.7
Did not cried immediately	5	5.3
Required neonatal admission	25	26.3
Duration of stay (n=25)		
Less than 24 hours	4	4.2
1-5 days	21	22.1
Reason for admitted (n=25)		
Breathing problem	16	16.8
Jaundice	5	5.3
Low birth weight	2	2.1
Feeding difficulties	2	2.1

Table 2 shows concerning pregnancy and delivery, 46.3% respondents were in their second pregnancy with 55.8% having one living child and 83.2% were in full-term pregnancies. Likely, 58.9% had spontaneous vaginal delivery and 41.1% cesarean section, 37.5% respondent had maternal comorbidities, 50.5% newborns weighed 3100–4000g and 26.3% cases had Neonatal ward admissions occurred.

Table 3: Involvement of Respondents' Spouse in Postnatal Care of Mother (n=95)

Statements	Responses					Median (IQR)
	1 No (%)	2 No (%)	3 No (%)	4 No (%)	5 No (%)	
My husband provides me nutritious diet, plenty of fluid	-	-	1 (1.1)	30 (31.6)	64(67.4)	5(5-4)
My husband reminds me to take iron and calcium daily	-	1(1.1)	3(3.2)	28(29.5)	63(66.3)	5(5-4)
My husband did not allow me to take alcohol and smoke	-	1(1.1)	1(1.1)	32(33.7)	61(64.2)	5(5-4)
My husband and I take turns waking up for the baby	-	-	3(3.2)	24(25.3)	68(71.6)	5(5-4)
My husband facilitates me for enough nighttime sleep by changing diaper, handling baby	-	3(3.2)	7(7.4)	26(27.4)	59(62.1)	5(5-4)
My husband reminds me to change maternity pads frequently	-	9(9.5)	18(18.9)	33(34.7)	35(36.8)	4(5-3)
My husband encourages me to sleep while baby was sleeping	-	-	5(5.3)	41(43.2)	49(51.6)	5(5-4)
My husband supports me to go toilet during postnatal period	-	-	6(6.3)	40(42.1)	49(51.6)	5(5-4)
My husband reminds me to evacuate bladder and wash genitals area	-	16(16.8)	19(20)	30(31.6)	30(31.6)	4(5-3)
My husband co-operates with me to avoid sexual intercourse during postnatal period	-	2(2.1)	1(1.1)	21(22.1)	71(74.7)	5(5-4)
My husband assists me in finding a comfortable position for breastfeeding	-	2(2.1)	2(2.1)	28(29.5)	63(66.3)	5(5-4)
My husband notices signs of discomfort or pain while breastfeeding	-	5(5.3)	13(13.7)	32(33.7)	45(47.4)	4(5-4)

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, IQR=Inter Quartile Range

Table 4: Involvement of Respondents' Spouse in the Care of Infant (n=95)

Statements	Responses					Median (IQR)
	1	2	3	4	5	
	No(%)	No (%)	No (%)	No (%)	No (%)	
My husband kept our room warm and free from draft	-	1(1.1)	18 (18.9)	38(40.0)	38(40.0)	4(5-4)
My husband was involved in undressing the wet baby clothes and kept the baby head covered with cap or cloth, changing nappy or diaper	-	-	3(3.2)	34(35.8)	58(61.1)	5(5-4)
My husband maintained calm and quite environment	-	-	5(5.3)	34(35.8)	56(58.9)	5(5-4)
My husband wash hand before touching the child also remind me to wash hands	-	2(2.1)	3(3.2)	39(41.1)	51(53.7)	5(5-4)
My husband kept the cord clean and dry and kept eye clean	-	3(3.2)	6(6.3)	37(38.9)	49(51.6)	5(5-4)
My husband help me to give the full bath to baby when needed	-	7(7.4)	10(10.5)	33(34.7)	45(47.4)	4(5-4)
My husband ensures temperature of bath water should be tested prior to bath the baby	-	7(7.4)	12(12.6)	33(34.7)	43(45.3)	4(5-4)
My husband knew about when baby should receive immunization according to schedule	-	6(6.3)	19(20)	25(26.3)	45(47.4)	4(5-3)
My husband is aware about the following danger signs of newborn:						
breathing problems		3(3.2)	13(13.7)	58(61.1)	21(22.1)	4(4-4)
Difficulties to awake	-	7(7.4)	17(17.9)	49(51.6)	22(23.2)	4(4-3)
Red, swollen eyelids and pus discharge	-	3(3.2)	13(13.7)	56(58.9)	23(24.2)	4(4-4)
Yellow palms and soles	-	7(7.4)	14(14.7)	51(53.7)	23(24.2)	4(4-4)
My husband made a joint plan with me for newborn follow up visits	-	-	6(6.3)	33(34.7)	56(58.9)	5(5-4)
My husband observes the baby's development and shares any concerns or observations with the doctors during follow-up visits	-	-	9(9.5)	32(33.7)	54(56.8)	5(5-4)

1=Strongly Disagree,2=Disagree,3=Neutral,4=Agree,5=Strongly Agree, IQR=Inter Quartile Range

Table 5: Level of Involvement of the Respondents' Spouse in Postnatal Care

Level of Involvement	Number	Percent
High Involvement (≥78 mean score)	94	98.9
Low Involvement (<78 mean score)	1	1.1
Total	95	100

Majority (98.9%) of spouses had high involvement in postnatal care, with Mean± (S.D) involvement was 112± (13.62), range 73-130 and total possible score was 26-130.

Table 6: Association between Level of Spouse Involvement with Sociodemographic and Obstetric Characteristics (n=95)

Characteristics	Level of Involvement		p-Value*
	Low No (%)	High No (%)	
*Ethnicity			
Brahmin	17(47.2)	19(52.8)	1.26
Others	21(35.6)	38(64.4)	
Religion			
Hinduism	33(41.8)	46(58.2)	0.43
Others	5(31.3)	11(68.8)	
Educational status of respondents			
Cannot read and write	1(25)	3(75)	0.64
Can read and write	37(40.7)	54(59.3)	
Occupation of respondents			
Housemaker	25(38.5)	40(61.5)	0.65
Others	13(43.3)	17(56.7)	
Occupation of husband			
Business	15(44.1)	19(55.9)	0.54
Others	23(37.7)	38(62.3)	
Type of family			
Nuclear	16(37.2)	27(62.8)	0.61
Joint	22(42.3%)	30(57.7)	
Economic status			
Monthly income insufficient for expenditure	2(22.2)	7(77.8)	0.37
Monthly income sufficient for expenditure and surplus	36(41.9)	50(58.1)	
Gravida			
Primigravida	12(30.0)	28(70.0)	0.09
Multigravida	26(47.3)	29(52.7)	
Mode of delivery			
Spontaneous Vaginal	28 (50)	28(50)	0.04*
Cesarean Section	10 (26.3)	29(74.3)	
Any postnatal complication			
Yes	4(36.4)	7(63.6)	1.0
No	34(40.5)	50(59.5)	
Duration of pregnancy (in weeks)			

Full term	31(39.2)	48(60.8)	0.73
Post term	7(43.8)	9(56.3)	
Neonatal admission			
Admitted	11(44)	14(56)	0.63
Did not admitted	27(38.6)	43(61.4)	

* *p* value significant at 0.05

DISCUSSION

Majority (42.1%) respondents were primigravid, 46.3% second gravid and 53.7% had one living child, by Similar findings stated by Paudel et al. 48% primigravida and 51% had one child and 11.6% reported. postnatal complications.¹⁶ Yasmin et al. from Bangladesh reported lower (21%) bleeding or infections, possibly reflecting higher education levels and better antenatal care.¹⁷ In this study 13.7% respondents were suffering from hypertension, 12.6% thyroid disorders, and 11.6% diabetes, this figures consistent with WHO global estimation of non-communicable diseases 10–15% of hypertension and diabetes among pregnant women.

This study found cesarean deliveries 40% mostly in primi mothers. Sharma et al. found that husbands are more supportive during surgical deliveries and first births,¹⁸ while Paudel et al. reported higher involvement among couples with fewer children. Conversely, uncomplicated recovery slightly lowering participation and perceived need for assistance.¹⁶ Overall, husband involvement is often higher during first births and post-cesarean recovery, it might be limited childcare experience and increased emotional and physical support needs.

Likewise, 83.2% baby born at 37–40 weeks and 16.8% post-term (>40 weeks), consistent finding full-term births reported by NDHS, 2016 85%.¹⁹ Full-term delivery is associated with better outcomes, 94.7% babies were cries at birth, similar findings (92%) mentioned by Yasmin et al. in his study in Bangladesh.¹⁷ However, 26.3% of newborns required neonatal admission, slightly higher (20%) than reported by Lawn et al. in South Asia who required early medical attention post-delivery.²⁰ The leading causes were respiratory problems (16.8%), jaundice (5.3%) and feeding

difficulties (2.1%), consistent with Chowdhury et al. identified respiratory issues (15–20%) and jaundice as major cause of neonatal admissions in Nepal.²¹

In this study 26.3% of newborn were admitted in neonatal unit. Spouse feels greater responsibility when his newborn ill or hospitalized and also increased emotional and practical involvement. Lawn et.al. noted that neonatal complications heighten parental stress and encourage more active paternal roles,²⁰ while Yasmin et al. found greater father involvement in both maternal and newborn care associated with NICU admissions.¹⁷ Majority (67.4%) spouses actively involved in providing nutritious food, 66.3% reminded to take iron and calcium, 71.6% baby care at night, and 64.2% discouraged smoking and alcohol use. Dhakal et al. reported alinged findings that 65% of spouses in Nepal supported maternal diet and rest,²² and Kulkarni et al. involvement in 69% reminds medication and 63% emotional support in urban India.²³ In this study only 36.8% of husbands reminded wives to change maternity pads and 31.6% support genital hygiene and bladder care. Paudel et. al. stated consistent findings that 30–40% of husbands assisted with hygiene-related care.¹⁶ Basu et al. highlighted the spousal support during postnatal period reduces maternal stress, improves recovery and breastfeeding outcomes.²⁴ Dhakal et al. in Nepal and Kulkarni et al. in India also found that husbands actively involved in general caregiving but less likely engaged hygiene related tasks.^{22,23} The lower involvement in culturally sensitive tasks might be cultural taboos & privacy.

Most (61.1%) spouses routinely involved in wet clothes and diapers change of newborn and care, 58.9% maintaining calm environment, 53.7% reminded for hand hygiene, 51.6% helped to keep umbilical cord and eyes clean,

47.4% for schedule immunization, and 58.9% participated in follow-up visits. Paudel et. al. reported that 55–60% paternal involvement in basic newborn care in Nepal ¹⁶ and Rahman et al. also stated similar finding that 59% fathers in Bangladesh engaged in infant care and 50% immunization schedules. ²⁵ Almost all spouses (98.9%) highly involved in newborns and wife caring after childbirth. This finding aligns with studies conducted by Kafle et al and Singh et al. in Nepal., likely urban and educated families also increasing paternal engagement. ^{26,27} In this study high level of involvement may be attributed to the predominance of education and urban participation, because of supporting evidence of education that enhances spouse participation in maternal and newborn care. However, statistically significant association was found between level of spouse involvement in postnatal care and mode of delivery.

CONCLUSION

The study concluded that almost all spouses were highly involved in postnatal care. Their involvement was strong in maternal nutrition, rest, breastfeeding support, newborn routine care, and emotional support. Hygiene-related involvement was comparatively lower. Statistically significant association was found between level of spouse involvement and mode of delivery.

Findings indicate the need for community-based interventions to address traditional cultural beliefs and promote male participation in postnatal perineal hygiene care.

CONFLICT OF INTEREST: None

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